

CLAIM AMENDMENTSIn the Claims:

Please cancel claims 5 and 27 and amend claims 1, 6, 7, 11, 12, 16-20, 24, 25, 28-31, 34-36, and 39-42 as follows:

1. (currently amended) An *in vivo* process for delivering a polynucleotide to a limb skeletal muscle cell in a mammal, comprising:
  - a) inserting the polynucleotide in a solution into a blood vessel of the limb in the mammal;
  - b) applying external pressure to against the mammal's limb epidermis skin, to such that impede blood flow of through the blood vessel is impeded; and,
  - c) ~~applying immunosuppression selected from the group consisting of continuous and transient to suppress an immune response to the polynucleotide~~ administering immunosuppressive treatment to the mammal; and,
  - d) ~~wherein delivering~~ delivery of the polynucleotide to the limb skeletal muscle cell resulting results in expression of the polynucleotide at detectable levels.
2. (original) The process of claim 1 wherein the polynucleotide consists of naked DNA.
3. (original) The process of claim 1 wherein the polynucleotide is selected from the group consisting of a viral vector and a non-viral vector.
4. (canceled)
5. (canceled)
6. (currently amended) The process of claim ~~5~~ 1 wherein the limb skeletal muscle cell consists of a leg skeletal muscle cell.
7. (currently amended) The process of claim ~~5~~ 1 wherein the limb skeletal muscle cell consists of an arm skeletal muscle cell.
8. (canceled)
9. (canceled)
10. (canceled)
11. (currently amended) The process of claim ~~9~~ 7 wherein the arm skeletal muscle cell is selected from the group consisting of palmaris longus muscle cell, pronator teres muscle cell, flexor carpi radialis muscle cell, flexor carpi ulnaris muscle cell, and flexor digitorum ~~sp~~ superficialis muscle cell.

12. (currently amended) The process of claim 10 7 wherein the arm skeletal muscle cell is selected from the group consisting of flexor digitorum ~~prof~~ profundus muscle cell, and pronator quadratus muscle cell.
13. (canceled)
14. (canceled)
15. (canceled)
16. (currently amended) The process of claim 14 7 wherein the arm skeletal muscle cell is selected from the group consisting of brachioradialis muscle cell, extensor carpi radialis longus muscle cell, extensor carpi muscle cell, radialis brevis muscle cell, extensor digitorum muscle cell, anconeus muscle cell, extensor carpi ulnaris muscle cell, and extensor pollicis longus muscle cell.
17. (currently amended) The process of claim 15 7 wherein the arm skeletal muscle cell is selected from the group consisting of supinator muscle cell, abductor pollicis longus muscle cell, extensor digiti secund et tertii muscle cell, and extensor digiti quart et minimi muscle cell.
18. (currently amended) The process of claim 7 wherein the arm skeletal muscle cell consists of a hand skeletal muscle cell.
19. (currently amended) The process of claim 18 wherein the hand skeletal muscle cell consists of a thumb muscle cell.
20. (currently amended) The process of claim 18 wherein the hand skeletal muscle cell consists of an interosseus muscle cell.
21. (canceled)
22. (canceled)
23. (canceled)
24. (currently amended) The process of claim 6 wherein the leg skeletal muscle cell is selected from the group consisting of gastrocnemius muscle cell and soleus muscle cell.
25. (currently amended) The process of claim 6 wherein the leg skeletal muscle cell is selected from the group consisting of popliteus muscle cell, flexor digitorum longus muscle cell, flexor hallucis longus muscle cell, and tibialis posterior muscle cell.
26. (previously canceled)
27. (canceled)
28. (currently amended) The process of claim 6 wherein the leg skeletal muscle cell consists of a foot skeletal muscle cell.

29. (currently amended) The process of claim 6 wherein the leg skeletal muscle cell is selected from the group consisting of tibialis anterior muscle cell, extensor hallucis longus muscle cell, extensor digitorum longus muscle cell, and abductor hallucis longus muscle cell.
30. (currently amended) The process of claim ~~27~~ 6 wherein the ~~internal leg~~ skeletal muscle cell is selected from the group consisting of peroneus longus muscle cell and peroneus brevis muscle cell.
31. (currently amended) The process of claim 28 wherein the foot skeletal muscle cell is selected from the group consisting of extensor digitorum brevis muscle cell and extensor hallucis brevis muscle cell.
32. (canceled)
33. (canceled)
34. (currently amended) The process of claim ~~33~~ 1 wherein ~~compressing mammalian skin~~ applying pressure against the mammal's skin consists of applying a tourniquet ~~over the skin around the limb~~.
35. (currently amended) The process of claim ~~33~~ 1 wherein applying pressure against the mammal's skin ~~compressing mammalian skin~~ consists of applying a cuff ~~over the skin around the limb~~.
36. (currently amended) The process of claim 35 wherein ~~compressing mammalian the cuff skin~~ consists of ~~applying a sphygmomanometer cuff over the skin~~.
37. (canceled)
38. (original) The process of claim 1 wherein the polynucleotide is delivered to non-vascular parenchymal cells.
39. (currently amended) An *in vivo* process for delivering a polynucleotide to a skeletal muscle cell in a mammal, comprising:
- inserting the polynucleotide into a blood vessel in a limb and applying pressure to ~~a~~ the limb wherein the pressure is applied ~~to~~ against the mammal's epidermis skin to and impedes blood flow ~~of to the blood vessel limb~~;
  - delivering the polynucleotide to the mammalian skeletal muscle cells ~~affected by distal~~ affected by distal to the applied pressure;
  - expressing the polynucleotide to detectable levels; and,
  - ~~maintaining function of the mammal's limbs wherein function is not affected by the delivery process.~~

wherein inserting the polynucleotide, applying pressure, and expressing the polynucleotide does not diminish use of the limb by the mammal.

40. (currently amended) The process of claim 1 wherein ~~immunosuppression~~ immunosuppressive treatment consists of ~~continuous~~ repetitive treatment.
41. (currently amended) The process of claim 1 wherein ~~immunosuppression~~ immunosuppressive treatment consists of a single treatment.
42. (currently amended) The process of claim 1 wherein ~~immunosuppression~~ immunosuppressive treatment delivery is selected from the group consisting of oral treatment and treatment by subcutaneous injection.